Title (en)

DC MOTOR

Title (de)

GLEICHSTROMMOTOR

Title (fr)

MOTEUR A COURANT CONTINU

Publication

EP 0511392 B1 19960828 (EN)

Application

EP 91918931 A 19911105

Priority

- JP 9101516 W 19911105
- JP 29985890 A 19901107

Abstract (en)

[origin: WO9209138A1] A small DC motor which can be driven at a high rotating speed and a high efficiency, can be produced at a low price, and is of a type of three-phase star-connection. From a position sensor provided with three Hall elements which sense the rotational position of the rotor of the motor, first position signals of the first to third phases, each having a width of 120 degrees in electrical angle, and second position signals which are different from the first position signals in phase by 60 degrees are inputted to a control circuit. The control circuit, by forcing successively transistors (10a-10d, 11a-11h) in the transistor bridge circuits respectively associated with armature coils (4a-4c) of the respective phases into conduction, supplies current to the armature coils of the respective phases in the forward and reverse directions. When stopping the current to the armature coils, by charging capacitors (16a-16c) connected to reverse blocking diodes (17a-17c) by use of the magnetic energies stored in the armature coils, the magnetic energies are decreased quickly. When starting the current application to the armature coils, by the charged voltages of the capacitors, the armature currents are made to build up rapidly.

IPC 1-7

H02P 6/00

IPC 8 full level

H02P 6/06 (2006.01); **H02P 6/08** (2016.01)

CPC (source: EP US)

H02P 6/085 (2013.01 - EP US); Y02P 80/10 (2015.11 - EP US)

Citation (examination)

- DE 2831991 A1 19800131 - PANDROL LTD
- EP 0387358 A1 19900919 - SEKOH GIKEN KK [JP]

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